

Etanorm 065-050-200 GG
 ETN 065-050-200-GGSAA10 GSECD4EHB

Operating point 1 Dimensioning operating point

Operating conditions (purchaser requirements)

| | | | |
|-----------------------------------|-----------------------|---------------------------------------|--------------|
| Target flow rate | 50 m ³ /h | Vapour pressure determined | -0,977 bar.a |
| Target head | 10 m | Minimum inlet pressure required | -0,3 bar |
| Fluid | Water | Specified ambient temperature | 20 °C |
| Fluid variant | Clean water | Installation altitude above sea level | 1.000 m |
| Specified fluid temperature | 20 °C | | |
| Density Fluid handled | 998 kg/m ³ | | |
| Kinematic viscosity Fluid handled | 1 mm ² /s | | |

Operating conditions (performance)

| | | | |
|-------------------------------|-------------------------|-----------------------------------|-------------|
| Flow rate | 50,01 m ³ /h | Maximum power input at duty point | 2,17 kW |
| Minimum permissible flow rate | 5,73 m ³ /h | Maximum power input / curve | 2,19 kW |
| Head | 10 m | Pump speed | 1.457 1/min |
| | | Discharge pressure-max. | 1,5 bar |
| Shut-off head | 15,28 m | | |
| Efficiency Pump | 62,6 % | | |
| NPSH required | 1,92 m | | |

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Design data pump

| | | | |
|---|--|--|------------------------|
| Scope of supply Pump supplied by KSB | Pump + coupling + coupling guard + baseplate + motor | Mains voltage | 400 V |
| Pump standard | EN 733 | Mains frequency | 50 Hz |
| Shaft axis position | Horizontal | Minimum efficiency index MEI | 0,7 |
| Pump design | Long-coupled (basepl-mounted) | Minimum permissible fluid temperature | 0 °C |
| Pump system design | Single-pump system | Maximum permissible fluid temperature | 60 °C |
| Specification of wetted parts | Manufactured without paint wetting impairment substances | Quantity Stages, single-entry | 1 |
| Pump direction of rotation, viewed from casing side | Counterclockwise | Casing wear ring design suction-side | Flat |
| Impeller diameter D2 | 203 mm | Casing wear ring design discharge-side | Flat |
| Impeller type | Radial, closed, multi-channel | Installation chamber Casing cover | Conical (A-type cover) |
| Free passage | 11,9 mm | Bearing bracket size / shaft unit | 25 |
| Nut lock for Impeller | No | Bearing bracket type | Bearing bracket |
| Swirl break | No | Bearing bracket design | Medium |
| | | Pump bearing type, non-drive end | Anti-friction bearing |
| | | Pump bearing type, drive end | Anti-friction bearing |
| | | Lubrication type | Grease lubrication |
| | | Bearing seal Pump | V-ring |
| | | Pump directive | CE |

Nozzle connections pump

| | | | |
|--|--------------------|--|----------|
| Nominal diameter Suction nozzle | DN 65 | Nominal diameter Discharge nozzle | DN 50 |
| Nominal pressure Suction nozzle | PN 16 | Nominal pressure Discharge nozzle | PN 16 |
| Suction nozzle position | Axial | Discharge nozzle position | 0 deg |
| Suction nozzle design acc.to | EN1092-2 | Discharge nozzle design acc.to | EN1092-2 |
| Suction flange bolt hole pattern as per standard | EN1092-2 | Discharge flange bolt hole pattern as per standard | EN1092-2 |
| Flange facing type Inlet | Raised face (B,RF) | | |
| Flange facing type Outlet | Raised face (B,RF) | | |

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Auxiliary connections pump

| | | | |
|------------------------------|------------------------------|----------------------------------|--------------------|
| 6B Fluid Drain | G 1/4 Drilled and plugged | 1M Pressure gauge | Without |
| | | Discharge nozzle | Without |
| 6D Fluid Filling and venting | G 1/4 Drilled and plugged | 1M Pressure gauge Suction nozzle | Without Without |
| 8B Leakage Drain | G 1/2 Drilled | | |

Shaft sealing

| | | | |
|--|------------------|---------------------------------|--------------|
| Shaft seal type | SMS A-type cover | Shaft seal code | Code 10 |
| Operating mode of mechanical seal (function) | API plan 03 | Shaft seal manufacturer inboard | KSB's choice |
| Determined pressure Seal chamber | -0,21 bar | Mechanical seal type inboard | 1 |
| | | Material Shaft seal inboard | Q1Q1X4GG |

Materials

| | | | |
|--|--------------------------------|---|----------------------------|
| Material Volute casing | EN-GJL-250/A48 CL 35B | Material Bolts/Screws | 8.8 |
| Material Casing cover | EN-GJL-250/A48 CL 35B | Hydraulic casing | |
| Material Shaft | C45+N | Material Screw plug Hydraulic casing | ST |
| Material Impeller | EN-GJL-250/A48 CL 35B | Material Static seal Screw plug Volute casing | A4/AISI 316 |
| Material Casing wear ring suction-side | JL/LAMELLAR GRAPHITE CAST IRON | Material Nut Impeller fastening (ST) | |
| Material Casing wear ring discharge-side | JL/LAMELLAR GRAPHITE CAST IRON | Material Key | C45+C/A311 GR 1045 CLASS A |
| Material Shaft protecting sleeve | (CRNIMO ST INT) | | |
| Material Bearing bracket | EN-GJL-250/A48 CL 35B | | |
| Material Static seal Discharge cover | DPAF DW001 | | |

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Driver

| | | | |
|---|-----------------------------|--------------------------------|-------------|
| Electric motor | Yes | Rated speed Motor | 1.440 1/min |
| Drive concept | With electric actuator | Number of motor poles | 4 |
| Drive standard, mechanical | IEC | Rated power Motor | 3 kW |
| Drive standard electric | IEC | Motor power reserve determined | 38,1 % |
| Motor bearing, insulated | No | Rated voltage Motor | 400 V |
| Motor manufacturer | KSB's choice | Motor winding | 400 / 690 V |
| Customer supply Drive | No | Rated frequency Motor | 50Hz |
| Motor construction type | IM B3 (IM1001) IEC 60034-7 | Motor switching type | Delta |
| Motor alignment | No | Rated current Motor | 6,2 A |
| Motor size | 100L | Starting current ratio Ia/In | 8,2 |
| Efficiency class | IE3 (Premium) | Cos phi at 4/4 load | 0,82 |
| Material motor housing | AL | Motor efficiency at 4/4 load | 87,7 % |
| Enclosure Motor | IP55 | Motor service factor | 1,13 |
| Thermal class | 155 (F) nach IEC 60085 | Directive Drive | CE |
| Temperature sensor motor | 3 PTC thermistors | | |
| Terminal box position of motor (looking at the motor shaft) | 360 ° | | |
| Operation on a frequency inverter permitted | Yes (acc to motor manufact) | | |
| Sound pressure level Motor | 63 dBa | | |
| Type series Motor manufacturer | Acc. to motor manufacturer | | |

Installation parts / Accessories

Coupling

| | |
|-----------------------|----------|
| Coupling type | ROFLEX N |
| Coupling manufacturer | KTR |
| Nominal size Coupling | 68 |

Coupling guard

| | |
|-----------------------------|--------------|
| Coupling guard type | Light (ZN79) |
| Nominal coupling guard size | A148 |
| Material Coupling guard | ST+Z |

Baseplate

| | |
|---------------------------------|------------------------|
| Baseplate type | Folded plate/U-section |
| Material Installation part Pump | (ST) |
| Baseplate size | 1A |
| Drill baseplate at motor end | Yes |

Accessories

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Coating

Aggregate

Surface preparation

Properties Primer coat

Thickness Primer coat

Properties Top coat

Thickness Top coat

Colour Top coat

Free from dirt, grease, rust

Hydro dip primer, water-dilutable

60 µm

Acrylate dispersion water-thin

40 µm

RAL5002 Ultramarine Blue

Packaging

Suitable for transport

Truck transport

Suitable for storage

Indoor storage

Packaging category

KSB's choice (A0)

Nameplates

Product properties

Specification of wetted parts

Manufactured without paint wetting impairment substances

Standard Test of specification of wetted parts

KSB documentation

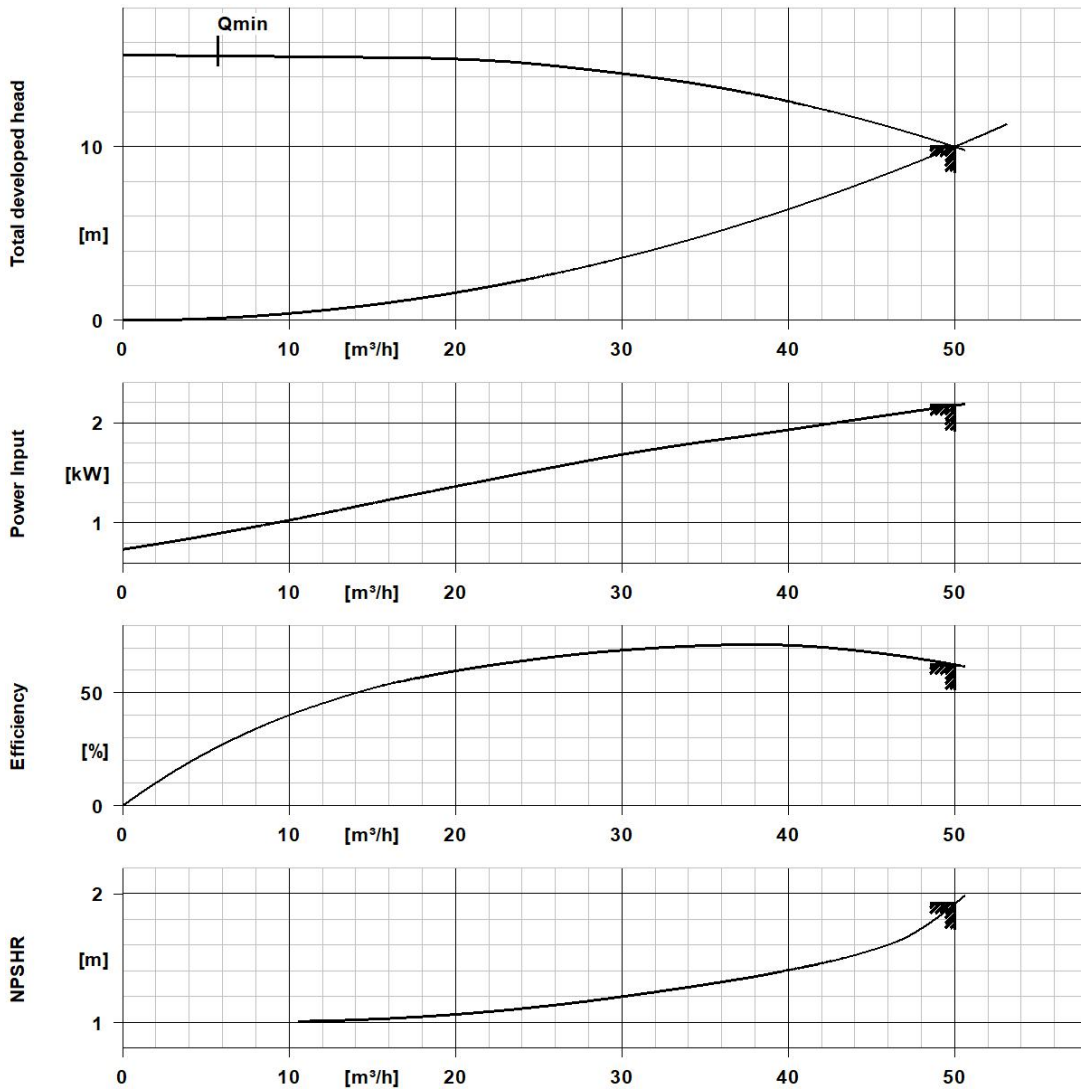
Certificate Check of specification of wetted parts

Without

Performance Curve (Pump)



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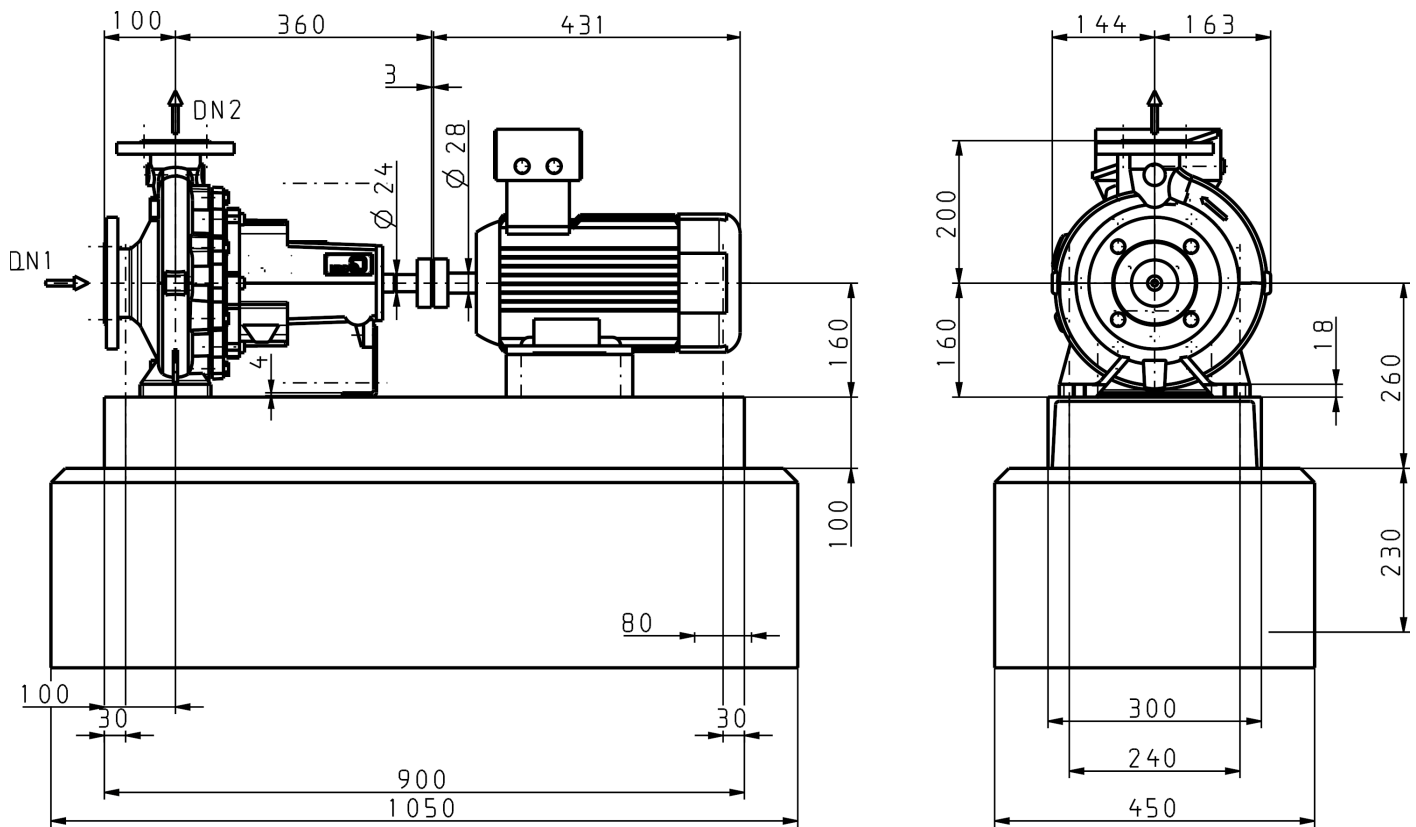


Curve Data

| | | | |
|-----------------------------------|-------------------------|---|----------------------|
| Pump speed | 1.457 1/min | Efficiency Pump | 62,6 % |
| Density Fluid handled | 998 kg/m ³ | Minimum efficiency index MEI | 0,7 |
| Kinematic viscosity Fluid handled | 1 mm ² /s | Maximum power input at duty point | 2,17 kW |
| Flow rate | 50,01 m ³ /h | NPSH required | 1,92 m |
| Head | 10 m | Hydraulic impeller diameter | 202,5 mm |
| | | Hydraulic calculation according to standard/class | EN ISO 9906 Class 3B |

According to EN ISO 9906, §4.4.2 (pump input power below 10 kW)

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Drawing is not to scale.

Dimensions are given in mm

Motor

| | |
|---|--------------|
| Motor manufacturer | KSB's choice |
| Motor size | 100L |
| Rated power Motor | 3 kW |
| Number of motor poles | 4 |
| Rated speed Motor | 1.440 1/min |
| Terminal box position of motor (looking at the motor shaft) | 360 ° |

Baseplate

| | |
|----------------|------------------------|
| Baseplate type | Folded plate/U-section |
| Baseplate size | 1A |

Connections

| | |
|------------------------------------|-----------------|
| Nominal diameter Suction nozzle | DN 65 |
| Suction flange bolt hole pattern | as per standard |
| Nominal diameter Discharge nozzle | DN 50 |
| Discharge flange bolt hole pattern | as per standard |
| Nominal pressure Suction nozzle | PN 16 |
| Nominal pressure Discharge nozzle | PN 16 |

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Coupling

| | |
|-----------------------|----------|
| Coupling manufacturer | KTR |
| Coupling type | ROFLEX N |
| Nominal size Coupling | 68 |

Net weight

| | |
|---------------------------------|----------|
| Total weight Pump | 47,3 kg |
| Total weight Installation parts | 44,66 kg |
| Total weight Coupling | 0,6 kg |
| Total weight Contact guard | 0,41 kg |
| Total weight Drive | 34 kg |
| Total weight Pump set | 127 kg |

Connect pipelines stress-free

Dimensional tolerances for shaft axis height: DIN 747
Dimensions without tolerances, middle tolerances to: ISO 2768-m
Connection dimensions for pumps: EN735
Dimensions without tolerances - welded parts: ISO 13920-B
Dimensions without tolerances - gray cast iron parts: ISO 8062-CT9

Plan for additional connections see extra drawing